

10/400 Ytterbium-Doped LMA Double Clad Fibers

Nufern's Large Mode Area (LMA) Ytterbium-Doped Double Clad Fiber is ideal for high power fiber lasers and amplifiers used in military, industrial, and medical applications. LMA Yb-doped fibers enable efficient, compact, diode pumped fiber sources that are an attractive alternative to traditional solid-state lasers. This fiber features a 10/400 core/cladding size with a low NA (0.075) core, > 77% slope efficiency, > 100W CW output power and is suitable for use in single-mode applications.

Typical Applications

- High power fiber lasers
- CW amplifiers
- Military, industrial and medical
- Single-mode applications

Features & Benefits

- LMA core design — Useful for generating high CW powers
- “Few” moded core design — Easy to maintain single mode LP01 beam through fiber & components
- PANDA-style stress structure for increased birefringence — Superior optical performance and uniformity
- All fiber proof tested to ≥ 100 kpsi — Critical for ensuring long term reliability when coiling

Optical Specifications

Operating Wavelength (nominal)	1060– 1115 nm
Cladding Absorption @ 915 nm	0.20 ± 0.05 dB/m
Cladding Absorption @ 975 nm (nominal)	0.7 dB/m
Core Numerical Aperture (nominal)	0.075
Cladding Numerical Aperture (nominal)	0.46
Birefringence (nominal)	3.0×10^{-4}

Geometrical & Mechanical Specifications

Core Diameter	11.5 ± 1.0 μ m
Clad Diameter	400 ± 15 μ m
Coating Diameter	550 ± 20 μ m
Outer Cladding Material	Low Index Polymer
Proof Test Level (radius bend method)	≥ 100 kpsi (0.7 GN/m ²)

PLMA-YDF-10/400

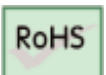
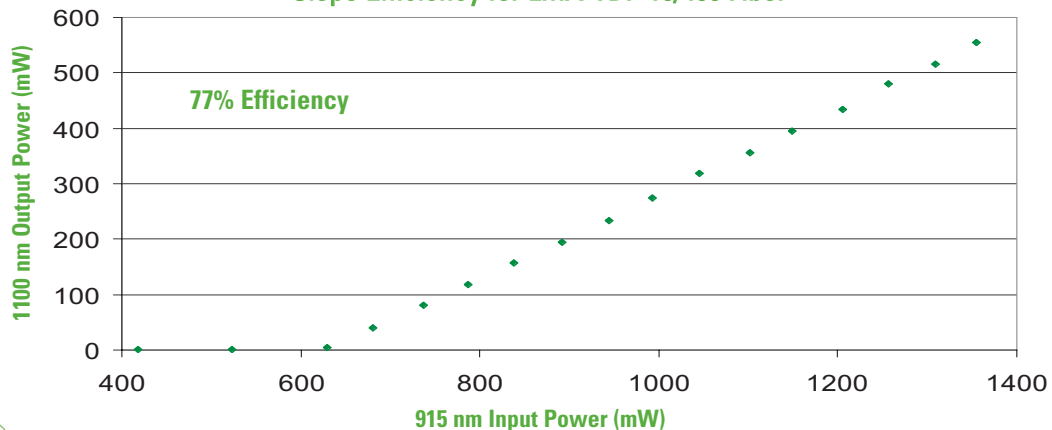
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Birefringence (nominal)	NA

Note: The passive version of this fiber is also available.

Slope Efficiency for LMA-YDF-10/400 Fiber



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Nufern products are manufactured under an ISO 9001:2000 certified quality management system.

Standard specifications and design parameters are listed above. Specifications are subject to change without notice. Other configurations such as alternative form factors, optimized cut-off and UV cured color coating may be available. Let us know how Nufern can assist with your requirements.